Midterm #2 Name:____________________________________

Microeconomics - EC 2106

Instructor: Robert McNab Score:________________

INSTRUCTIONS: Please answer all questions to the best of your ability within the allotted time of 100 minutes. You are required to **show your work** to receive credit. For multiple choice and true/false questions, please circle the appropriate answer. 100 possible points.

Section 1: Basic Comprehension 20 points

1. Indicate whether the following statements represent a normative (N) or positive (P) statement. Two points apiece.

P N Monopolistic firms charge higher prices that competitive firms.

P N The Federal Government should take action to stimulate competition in those industries dominated by one or several firms since competition is beneficial for consumers.

2. T F If the marginal cost curve for a purely competitive firm lies above the average cost curve, then average costs must be declining. 3 points.

3. T F Price inelastic goods are more responsive to changes in price than price elastic goods. 3 points

4. Which of the following statements is most accurate? 5 points

a. All else remaining equal, if supply increases and demand decreases, price will decline and quantity will increase.
b. All else remaining equal, if supply decreases and demand increases, price will increase and quantity will decrease.
c. All else remaining equal, if supply increases and demand increases, price will be ambiguous and quantity will decrease.
d. All else remaining equal, if supply decreases and demand decreases, price will be ambiguous and quantity will decrease.

5. Assume that a purely competitive firm is operating in long-run equilibrium and market demand increases by 10%. In the long-run, the firm will: 5 points

a. Be profitable
b. Break Even
c. Minimize Losses
d. Shutdown

Part II - 80 Points

1. Assume that Merck Pharmaceuticals develops a non-toxic, non-addictive drug to prevent obesity and is rewarded a patent on the drug by the Federal Drug Administration. Initially, Merck produces 125 million units of the drug Meltaway each quarter and sells the drug at a price of $15 per unit. At this quantity, Merck's total costs are $500 million, with variable costs of $250 million. The marginal cost of the last unit of Meltaway is estimated to be $0.50.

   1.1 Illustrate the short-run equilibrium described in (1). Make sure that you illustrate the ATC and AVC for the last unit of production. 10 points.

   1.2 Assume that after 2 years, researcher's discover that Meltaway also acts as a vaccine against most forms of cancer. Illustrate what might occur to demand and what affect this might have on the equilibrium price and quantity for the market for Meltaway. 10 points.

2. Assume that the market for computer flight simulation games is in equilibrium at a price of $55 with a equilibrium quantity of 255,0000 units sold per month. Your research staff has informed you that the price elasticity for your flight simulation game is estimated at 1.9 while the income elasticity is estimated at 2.25 Furthermore, they have estimated that the cross-price elasticity between your computer software game and joysticks is -1.5. Answer the following questions based on this information.

   2.1 Assuming all else remaining equal, should you increase the price of your flight simulation game from $55 to $70? Provide a numerical illustration for your answer. 5 points

   2.2 Your sources in Washington D.C. have informed you that personal income is expected to decrease by 3% in the coming year. Assuming all else remaining equal, what impact will this have on the market? Provide a numerical illustration of your answer. 5 points

   2.3 You receive information that the main producer of joysticks has granted a 30% wage increase to their employees and that the price of joysticks is expected to increase by 5%. All else remaining equal, what impact can you expect this to have on the demand for your product? Provide a numerical illustration of your answer. 5 points.

3. Illustrate the difference between minimizing losses and making a profit for a purely competitive firm, a monopolistic firm, a monopolistic competitor, and an oligopolistic firm. 25 points

4. Assume that Frank's video store in the town of Rome, GA can rent 2500 videos a month for the going market rate of $2 per video. On average, Frank's total costs equal $4000 per month, which is broken down into fixed costs of $1000 per month and variable costs of $3000 per month. There are 20 other video stores in Rome, GA that are similar to Frank's.

4.1 Illustrate the short-run market and firm equilibrium and provide a numerical estimation of Frank's profits or losses. What do you think will happen to the number of video stores in Rome, GA? 10 points.

4.2 Assume that a tornado destroy's 10 of the 20 video stores in Rome, GA. Frank, being one of the lucky video store owner's, finds that he is now renting 4000 videos a month at the market rate of $3 per video. Assume that Frank's total costs remain the same. Illustrate the short-run impact of the tornado on the market for video rentals and the typical firm in Rome, GA. 10 points.